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(54) **Multicore fiber transmission systems and methods**

(57) An optical data link includes first and second pluralities of transmission devices, at least one of which is configured as an array. A multichannel transmission link has a first end connected to the first plurality of transmission devices and a second end connected to the second plurality of transmission devices so as to form a plurality of parallel transmission channels therebetween. The multichannel transmission link includes a multicore fiber with a plurality of individual cores having a configuration

matching the array configuration of the at least one plurality of transmission devices. The multicore fiber has an endface connected directly to the at least one plurality of transmission devices, with the individual cores of the multicore fiber aligned with respective devices in the at least one plurality of transmission devices. Further described are access networks and core networks incorporating a transmission link comprising at least one span of a multicore fiber.

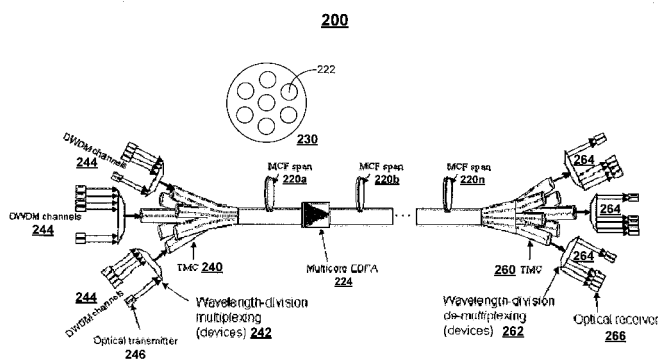


FIG. 7



EUROPEAN SEARCH REPORT

Application Number
EP 11 15 7677

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	ROMANIUK R S ET AL: "MULTICORE OPTICAL FIBER COMPONENTS", SPIE PROCEEDINGS, THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING - SPIE, BELLINGHAM, WASHINGTON, USA, vol. 722, 22 September 1986 (1986-09-22), pages 117-124, XP000198335, ISSN: 0277-786X * abstract * * page 117, paragraph 1 - paragraph 4 * * page 119, paragraph 2 * * page 119, paragraph 4 * * page 119, paragraph 6 - page 122, paragraph 1; figures 1, 2 * * page 122, paragraph 4 * * page 123, paragraph 2 - page 124, paragraph 9; figure 3 * -----	1-23	INV. H04J14/02 G02B6/42 G02B6/02 H04J14/00
X	US 2002/105715 A1 (NAITO TAKAO [JP] ET AL) 8 August 2002 (2002-08-08) * paragraph [0002] * * paragraph [0046] - paragraph [0058]; figures 5,6,7 * -----	1,2	TECHNICAL FIELDS SEARCHED (IPC) H04J
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 30 October 2012	Examiner Roldán Andrade, J
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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